

**Notice of Allowability**

Application No.

10/092,662

Examiner

Belix M. Ortiz

Applicant(s)

YANO ET AL.

Art Unit

2164

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/18/2006.
2. ☒ The allowed claim(s) is/are 24-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



**CHARLES RONES**  
**SUPERVISORY PATENT EXAMINER**

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. The following is an Examiner's statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose, make obvious, or otherwise suggest the structure of the applicant's prediction program, prediction apparatus, and prediction method together with the other limitations of the independent claims.

The dependent claims being further limiting and definite are also allowable. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### AMENDMENT TO THE CLAIMS:

Claims 24 and 35 have been amended. Claims 24-38 remain pending in the application.

#### WHAT IS CLAIMED IS:

24. (Currently Amended) A storage system comprising:

at least one communication port configured to be coupled to a network;

a plurality of storage devices being different in access rate; and

a controller in data communication between the storage devices and the at least one communication port,

wherein the at least one communication port receives from a computer connected to the network a request for storing file data having a data structure comprising a plurality of data blocks,

wherein the controller sets a policy according to a data structure of the file data to determine in which storage devices the data blocks ~~should~~ are to be placed,

wherein the controller is operable to assign the data blocks of the file data to the storage devices by collating the policy when the controller receives the file data associated with the request for storing via the communication port,

wherein the data blocks are stored in the storage devices as determined by the policy.

35. (Currently Amended) A storage method for storing file data into a plurality of storage devices comprising:

providing a plurality of storage devices, each being different in its access rate, to store a different data block therein according to an attribute of the file data having a data structure comprising a plurality of data blocks;

setting previously a policy according to the data structure of the file data to determine in which storage devices that data blocks ~~should~~ are to be placed;

receiving from a computer a request for storing file data having the data structure having the data blocks;

assigning the data blocks of the file data to the storage devices by collating the policy; and

storing the data block into the different storage devices assigned by the policy.

**Reasons for Allowance**

2. Claims 24-38 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter: the prior arts of records, neither anticipates nor renders obvious the following limitations as claimed:

As to claims 24 and 35, the prior art of records fail to anticipate or suggest a storage system comprising:

a plurality of storage devices being different in access rate; and

a controller in data communication between the storage devices and the at least one communication port,

wherein the at least one communication port receives from a computer connected to the network a request for storing file data having a data structure comprising a plurality of data blocks,

wherein the controller sets a policy according to a data structure of the file data to determine in which storage devices the data blocks are to be placed,

wherein the controller is operable to assign the data blocks of the file data to the storage devices by collating the policy when the controller receives the file data associated with the request for storing via the communication port,

wherein the data blocks are stored in the storage devices as determined by the policy, together with the other limitations of the independent claims.

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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is 571-272-4081. The examiner can normally be reached on 8-5.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

bmo

February 20, 2007



CHARLES RONES  
SUPERVISORY PATENT EXAMINER